handwritten: 16:30 Rush

Serial Number: ___09/575,5805___

~~ENTERED~~ *(stamp)*

CRF Processing Date: __5/29/2002__
Edited by: _____
Verified by: _____ (STIC staff)

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically: _____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included: _____

☐ Deleted extra, invalid, headings used by an applicant, specifically: _____

☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____ .

☑ Inserted mandatory headings, specifically: ___<2207 globally___

☐ Corrected an obvious error in the response, specifically: _____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically: _____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other: _____

_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1600

```
RAW SEQUENCE LISTING              DATE: 05/29/2002
PATENT APPLICATION:  US/09/575,580B     TIME: 12:26:25

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw
```

$p6$

```
 3 <110> APPLICANT: McKeon, F.
 4         Kayako, K.
 5         Ryeom, S.
 7 <120> TITLE OF INVENTION: CALCIPRESSINS: ENDOGENOUS INHIBITORS OF CALCINEURIN
 8         USES AND REAGENTS RELATED THERETO
10 <130> FILE REFERENCE: HMV-048.01
12 <140> CURRENT APPLICATION NUMBER: 09/575,580B
13 <141> CURRENT FILING DATE: 2000-05-22
15 <160> NUMBER OF SEQ ID NOS: 45
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 2484
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
24 <400> SEQUENCE: 1
25 cttgggttta gctccctgag gacacaaact gtcctaagac tatgataata gtaatcatag 60
26 aaccgtgcac atggcaagtt ctgaataaat ctcagctgtt ggatatactt tttgttataa 120
27 ttactaacac ttcctaacta gagagtaagc ctactctaag aaaaaatata actgtaattt 180
28 cacaacctcc aaagaaccca gtgcataaac agctaccatt tattaagcac tgactgaatt 240
29 cttagtaata tgtcttcatt tttttcagat gaggaaacta agattcagct tatttgtaca 300
30 agtagttaaa aagcaaagct gaaattcaga cccaagttct cactgtatca tactgtccaa 360
31 aaaagaattc tattttttcag gaagagacat gtctgctcac ttgaggtcct cttattttttc 420
32 cgctattccc caaaggaaag gggtgatctc ttaattcttt cgttatgtcc tattgtacat 480
33 agcatataat ggtaattcag aaaaattact tctaattaca taaattttca caatggtata 540
34 gtgactaata cgctgaaata gaaaagtaag gcattgttat catggtctag ttcagtcttt 600
35 attgcgacta tatctgataa tatacggtaa gcatctaacc acttgccagg ggccacagag 660
36 ccacagggag actatgtctc gcttaaattc ccaaaagtgg gccctgtgc ttcaaaacgt 720
37 ccccgcatgg gaaccacaaa aacgttgcct cccagttat cacccaagg gcccaagag 780
38 cggaggactct gccggcgtc cttcagctgg caccagctgt cagaaaagcg gaactgggga 840
39 cgaggacttt gccctaacc aacatggccg ccctgaggct tgggcttcg ggcggcagaa 900
40 ggaaggtcac gtgaagagaa ttccgttcct ttattggccc cgtctcctgg aagggcgggg 960
41 tacaataacc caaccggcgc cggccttaaa ggggccaccg ttggatctgc cggtggccgg 1020
42 ccctagggc tggggggcg gtcgccgcgc cgggcttctg ccctcccgc gcggaacggt 1080
43 gacgggcggg gctggcgctg ggaggccgtg tcgctgggag actgctgaca gcccgccgcc 1140
44 tgccgccgcg cgattccgag ggggttaacg gcggagccgc cggccgggcg cggaccggag 1200
45 cgcgtgaggc tccggcgcgc aagcccggag cagccgcctg gggcgcacag ggtcgcgcgg 1260
46 gcgcggggat ggaggacggc gtggccggtc cccagctcgg ggccgcggcg gaggcggcgg 1320
47 aggcggccga ggcgcgagcg cggcccgggg tgacgctgcg gcccttcgcg ccctctcgg 1380
48 gggcggccga ggcgcgagcg cggccgggg atgggcctt catcctctcg ccctcctct 1440
```

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 12:26:25

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw

```
53 gggacggcgc cccgagggtc ccggtcccct agcacccccg gggcgcgcgg agctcactgc 1740
54 agagtcccac aggctcgccc cggcccccgt gtgcgcccag gctggtgcga ctagggggt 1800
55 gaattcgctc cccaaggtgg ggcagcgccg ccgcccccctg cgctctcgcc atcgccccgc 1860
56 atttactcgc tggaggaggg ggtcacctca ttcctaggga ggaggaaaca gacattgagc 1920
57 ggcgacgtga ctcagtgttc ataaatagga cgacgtccct gcattcccaa tctgcactat 1980
58 tggaagaaaa gccaatgttt gggtgaggat ccgtggttgc tcattagcca gcggctggcc 2040
59 agttttggtg gaattgtgtt gggggggaagg ggaccatctt tcagaccttt aggatattta 2100
60 gtcaagaacc ttgccccctt gtgtgaaggt gtggcttgcc gccatcgggg acacccagta 2160
61 catggggagt cgactccttc ccccgcctcc ccccacccc gcaaaatcca cacaatttag 2220
62 acactttgga gggtgagggg caggtatgag taatcaataa tggtggtggg gaggaagaat 2280
63 ttatttcaaa tctgcagtta ttgtgcagaa taaaatgtgg acaacgtggg cgtcacagaa 2340
64 tgaaaccggt ctttgagaga tgccccatta ggagagcagc tgtcaaaaaa agcagtgctt 2400
65 tcagcgcttg gctgtgggtc cacaaatgct gtcaatgaac tatagttgaa ggctgctgcc 2460
66 aatacaacac cactgtgaaa caga                                       2484
69 <210> SEQ ID NO: 2
70 <211> LENGTH: 597
71 <212> TYPE: DNA
72 <213> ORGANISM: Mus musculus
74 <400> SEQUENCE: 2
75 atggaggagg tggatctgca ggacctgccg agcgccacca tcgcctgcca cctggacccg 60
76 cgcgtgttcg tggacggcct gtgccgggcc aaatttgaat ccctcttcag aacatatgac 120
77 aaggacacca ccttccagta ttttaagagc ttcaaacgtg tccggataaa cttcagcaac 180
78 cccttatctg cagccgatgc caggctgcgg ctgcacaaga ccgagttcct ggggaaggaa 240
79 atgaagttgt attttgctca gactttacac ataggaagtt cacacctggc tccgcccaat 300
80 cccgacaaac agttcctcat ctcccctccg gcctctcctc ccgttggctg gaaacaagta 360
81 gaagatgcca ccccgtcat aaattacgat cttttatatg ccatctccaa gctggggcca 420
82 ggagagaagt atgaactgca tgcagcgaca gaccccactc ccagtgtggt ggtccacgtg 480
83 tgtgagagtg accaagagaa tgaggaggaa gaggaagaga tggagagaat gaagagaccc 540
84 aagcccaaaa tcatccagac acggagaccg gagtacacac cgatccacct tagctga 597
87 <210> SEQ ID NO: 3
88 <211> LENGTH: 729
89 <212> TYPE: DNA
90 <213> ORGANISM: Mus musculus
92 <400> SEQUENCE: 3
93 gaattcgtcg acccacgcgt ccgcccacgc gtccgcttgg ggcagcaggc atctatccct 60
94 gaagatgggg gactttttctt cctctgctgc atagacagag actgggctgt cactcagtgt 120
95 tttgctgaag aggccttcca agcactcact gacttcagtg atctcgcccaa ctcattgttt 180
96 ggctgcaatg ttcaccagtc tgtgtttgaa gaagaggaga gcaaggaaaa attcgaggga 240
97 ctgttccgga cctatgatga atgtgtgacg ttccagctgt ttaagagttt ccgacgggtt 300
98 cgaataaatt tgagccatcc caaatctgca gcccgtgccc ggatagagct tcatgagact 360
99 cagttcagag ggaagaagct acccctctac ttcgcccagg tccagacccc agagacagat 420
100 ggagacaaac tgcatttggc acctccacag cctgccaaac agttcctcat ctcacccct 480
101 tcatctccat ctgttggctg gaagcctatc agcgatgcca caccagtcct caactatgac 540
102 cttctttatg ctgtggccaa actaggacca ggagagaaat atgagctgca cgctggaact 600
103 gagtctaccc cgagcgtcgt ggtgcatgtg tgtgacagcg acatggagag ggaggaggac 660
104 ccaaagactt ccccaaagcc aaaaatcaat cagacccggc ggcctggcct gccacccttc 720
105 ggtcactga                                                       729
108 <210> SEQ ID NO: 4
```

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B TIME: 12:26:25

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw

```
110 <212> TYPE: PRT
111 <213> ORGANISM: Mus musculus
113 <400> SEQUENCE: 4
114 Met Glu Glu Val Asp Leu Gln Asp Leu Pro Ser Ala Thr Ile Ala Cys
115   1               5                   10                  15
117 His Leu Asp Pro Arg Val Phe Val Asp Gly Leu Cys Arg Ala Lys Phe
118              20                  25                  30
120 Glu Ser Leu Phe Arg Thr Tyr Asp Lys Asp Thr Thr Phe Gln Tyr Phe
121          35                  40                  45
123 Lys Ser Phe Lys Arg Val Arg Ile Asn Phe Ser Asn Pro Leu Ser Ala
124      50                  55                  60
126 Ala Asp Ala Arg Leu Arg Leu His Lys Thr Glu Phe Leu Gly Lys Glu
127  65                  70                  75                  80
129 Met Lys Leu Tyr Phe Ala Gln Thr Leu His Ile Gly Ser Ser His Leu
130              85                  90                  95
132 Ala Pro Pro Asn Pro Asp Lys Gln Phe Leu Ile Ser Pro Pro Ala Ser
133             100                 105                 110
135 Pro Pro Val Gly Trp Lys Gln Val Glu Asp Ala Thr Pro Val Ile Asn
136             115                 120                 125
138 Tyr Asp Leu Leu Tyr Ala Ile Ser Lys Leu Gly Pro Gly Glu Lys Tyr
139     130                 135                 140
141 Glu Leu His Ala Ala Thr Asp Pro Thr Pro Ser Val Val Val His Val
142 145                 150                 155                 160
144 Cys Glu Ser Asp Gln Glu Asn Glu Glu Glu Glu Glu Met Glu Arg
145             165                 170                 175
147 Met Lys Arg Pro Lys Pro Lys Ile Ile Gln Thr Arg Arg Pro Glu Tyr
148             180                 185                 190
150 Thr Pro Ile His Leu Ser
151         195
154 <210> SEQ ID NO: 5
155 <211> LENGTH: 242
156 <212> TYPE: PRT
157 <213> ORGANISM: Mus musculus
159 <400> SEQUENCE: 5
160 Glu Phe Val Asp Pro Arg Val Arg Pro Arg Val Arg Leu Gly Gln Gln
161   1               5                   10                  15
163 Ala Ser Ile Pro Glu Asp Gly Gly Leu Phe Phe Leu Cys Cys Ile Asp
164              20                  25                  30
166 Arg Asp Trp Ala Val Thr Gln Cys Phe Ala Glu Glu Ala Phe Gln Ala
167          35                  40                  45
169 Leu Thr Asp Phe Ser Asp Leu Pro Asn Ser Leu Phe Ala Cys Asn Val
170      50                  55                  60
172 His Gln Ser Val Phe Glu Glu Glu Glu Ser Lys Glu Lys Phe Glu Gly
173  65                  70                  75                  80
175 Leu Phe Arg Thr Tyr Asp Glu Cys Val Thr Phe Gln Leu Phe Lys Ser
176              85                  90                  95
178 Phe Arg Arg Val Arg Ile Asn Phe Ser His Pro Lys Ser Ala Ala Arg
179
```

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 12:26:25

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw

```
182          115                 120                 125
184 Leu Tyr Phe Ala Gln Val Gln Thr Pro Glu Thr Asp Gly Asp Lys Leu
185      130                 135                 140
187 His Leu Ala Pro Pro Gln Pro Ala Lys Gln Phe Leu Ile Ser Pro Pro
188 145                 150                 155                 160
190 Ser Ser Pro Ser Val Gly Trp Lys Pro Ile Ser Asp Ala Thr Pro Val
191                 165                 170                 175
193 Leu Asn Tyr Asp Leu Leu Tyr Ala Val Ala Lys Leu Gly Pro Gly Glu
194                 180                 185                 190
196 Lys Tyr Glu Leu His Ala Gly Thr Glu Ser Thr Pro Ser Val Val Val
197          195                 200                 205
199 His Val Cys Asp Ser Asp Met Glu Arg Glu Glu Asp Pro Lys Thr Ser
200      210                 215                 220
202 Pro Lys Pro Lys Ile Asn Gln Thr Arg Arg Pro Gly Leu Pro Pro Phe
203 225                 230                 235                 240
205 Gly His
209 <210> SEQ ID NO: 6
210 <211> LENGTH: 192
211 <212> TYPE: PRT
212 <213> ORGANISM: Homo sapiens
214 <400> SEQUENCE: 6
215 Met Asp Cys Asp Val Ser Thr Leu Val Ala Cys Val Val Asp Val Glu
216    1                 5                 10                 15
218 Val Phe Thr Asn Gln Glu Val Lys Glu Lys Phe Glu Gly Leu Phe Arg
219              20                 25                 30
221 Thr Tyr Asp Asp Cys Val Thr Phe Gln Leu Phe Lys Ser Phe Arg Arg
222          35                 40                 45
224 Val Arg Ile Asn Phe Ser Asn Pro Lys Ser Ala Ala Arg Ala Arg Ile
225      50                 55                 60
227 Glu Leu His Glu Thr Gln Phe Arg Gly Lys Lys Leu Lys Leu Tyr Phe
228 65                 70                 75                 80
230 Ala Gln Val Gln Thr Pro Glu Thr Asp Gly Asp Lys Leu His Leu Ala
231              85                 90                 95
233 Pro Pro Gln Pro Ala Lys Gln Phe Leu Ile Ser Pro Pro Ser Ser Pro
234              100                 105                 110
236 Pro Val Gly Trp Gln Pro Ile Asn Asp Ala Thr Pro Val Leu Asn Tyr
237          115                 120                 125
239 Asp Leu Leu Tyr Ala Val Ala Lys Leu Gly Pro Gly Glu Lys Tyr Glu
240      130                 135                 140
242 Leu His Ala Gly Thr Glu Ser Thr Pro Ser Val Val Val His Val Cys
243 145                 150                 155                 160
245 Asp Ser Asp Ile Glu Glu Glu Glu Asp Pro Lys Thr Ser Pro Lys Pro
246                 165                 170                 175
248 Lys Ile Ile Gln Thr Arg Arg Pro Gly Leu Pro Pro Ser Val Ser Asn
249          180                 185                 190
255 <210> SEQ ID NO: 7
256 <211> LENGTH: 170
257 <212> TYPE: PRT
```

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 12:26:25

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw

```
260 <400> SEQUENCE: 7
261 Met Val Tyr Ala Lys Phe Glu Ser Leu Phe Arg Thr Tyr Asp Lys Asp
262  1             5                  10                  15
264 Ile Thr Phe Gln Tyr Phe Lys Ser Phe Lys Arg Val Arg Ile Asn Phe
265              20                  25                  30
267 Ser Asn Pro Phe Ser Ala Ala Asp Ala Arg Leu Gln Leu His Lys Thr
268              35                  40                  45
270 Glu Phe Leu Gly Lys Glu Met Lys Leu Tyr Phe Ala Gln Thr Leu His
271          50                  55                  60
273 Ile Gly Ser Ser His Leu Ala Pro Pro Asn Pro Asp Lys Gln Phe Leu
274  65                  70                  75                  80
276 Ile Ser Pro Pro Ala Ser Pro Pro Val Gly Trp Lys Gln Val Glu Asp
277              85                  90                  95
279 Ala Thr Pro Val Ile Asn Tyr Asp Leu Leu Tyr Ala Ile Ser Lys Leu
280             100                 105                 110
282 Gly Pro Gly Glu Lys Tyr Glu Leu His Ala Ala Thr Asp Thr Thr Pro
283             115                 120                 125
285 Ser Val Val Val His Val Cys Glu Ser Asp Gln Glu Lys Glu Glu Glu
286         130                 135                 140
288 Glu Glu Met Glu Arg Met Arg Arg Pro Lys Pro Lys Ile Ile Gln Thr
289 145                 150                 155                 160
291 Arg Arg Pro Glu Tyr Thr Pro Ile His Leu
292             165                 170
295 <210> SEQ ID NO: 8
296 <211> LENGTH: 197
297 <212> TYPE: PRT
298 <213> ORGANISM: Cricetulus griseus
300 <400> SEQUENCE: 8
301 Met His Phe Arg Asp Phe Asn Tyr Asn Phe Ser Ser Leu Ile Ala Cys
302  1             5                  10                  15
304 Val Ala Asn Gly Asp Val Phe Ser Glu Ser Glu Thr Arg Ala Lys Phe
305              20                  25                  30
307 Glu Ser Leu Phe Arg Thr Tyr Asp Lys Asp Ile Thr Phe Gln Tyr Phe
308              35                  40                  45
310 Lys Ser Phe Lys Arg Val Arg Ile Asn Phe Ser Asn Pro Leu Ser Ala
311          50                  55                  60
313 Ala Asp Ala Arg Leu Gln Leu His Lys Thr Glu Phe Leu Gly Lys Glu
314  65                  70                  75                  80
316 Met Lys Leu Tyr Phe Ala Gln Thr Leu His Ile Gly Ser Ser His Leu
317              85                  90                  95
319 Ala Pro Pro Asn Pro Asp Lys Gln Phe Leu Ile Ser Pro Pro Ala Ser
320             100                 105                 110
322 Pro Pro Val Gly Trp Lys Gln Val Glu Asp Ala Thr Pro Val Ile Asn
323             115                 120                 125
325 Tyr Asp Leu Leu Tyr Ala Ile Ser Lys Leu Gly Pro Gly Glu Lys Tyr
326         130                 135                 140
328 Glu Leu His Ala Ala Thr Asp Thr Thr Pro Ser Val Val Val His Val
329 145                 150                 155                 160
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 12:26:26

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\05292002\I575580B.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:27; N Pos. 2410
Seq#:28; Xaa Pos. 6
Seq#:33; Xaa Pos. 1,2,3

1600

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 10:49:52

Input Set : A:\09575580 Seq listing.txt
Output Set: N:\CRF3\05292002\I575580B.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: McKeon, F.
4   Kayako, K.
5   Ryeom, S.
7 <120> TITLE OF INVENTION: CALCIPRESSINS: ENDOGENOUS INHIBITORS OF CALCINEURIN
8   USES AND REAGENTS RELATED THERETO
10 <130> FILE REFERENCE: HMV-048.01
12 <140> CURRENT APPLICATION NUMBER: 09/575,580B
13 <141> CURRENT FILING DATE: 2000-05-22
15 <160> NUMBER OF SEQ ID NOS: 45
17 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

1033 <210> SEQ ID NO: 36
1034 <211> LENGTH: 24
1035 <212> TYPE: PRT
1036 <213> ORGANISM: Artificial Sequence
W--> 1037 <220> FEATURE: ← insert
1037 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
1038   construct
E--> 1040 <400> SEQUENCE: 36
1041 Met Gly Gly Cys Arg Gly Asp Met Phe Gly Cys Gly Ala Pro Pro Lys
1042 1   5   10   15
1044 Lys Lys Arg Lys Val Ala Gly Phe
1045   20
1084 <210> SEQ ID NO: 38
1085 <211> LENGTH: 74
1086 <212> TYPE: PRT
1087 <213> ORGANISM: Artificial Sequence
W--> 1088 <220> FEATURE: ← insert
1088 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
1089   construct
E--> 1091 <400> SEQUENCE: 38
1092 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1093 1   5   10   15
1095 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
1096   20   25   30

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 10:49:52

Input Set : **A:\09575580 Seq listing.txt**
Output Set: **N:\CRF3\05292002\I575580B.raw**

```
1105  65                    70
1201  <210> SEQ ID NO: 40
1202  <211> LENGTH: 303
1203  <212> TYPE: PRT
1204  <213> ORGANISM: Artificial Sequence
```
W--> `1205 <220> FEATURE:` ← *insert*
```
1205  <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
1206        construct
```
OK `1208 <400> SEQUENCE: 40`
```
1209  Met Thr Ser Arg Arg Ser Val Lys Ser Gly Pro Arg Glu Val Pro Arg
1210   1               5                  10                  15
1212  Asp Glu Tyr Glu Asp Leu Tyr Tyr Thr Pro Ser Ser Gly Met Ala Ser
1213              20                  25                  30
1215  Pro Asp Ser Pro Pro Asp Thr Ser Arg Arg Gly Ala Leu Gln Thr Arg
1216          35                  40                  45
1218  Ser Arg Gln Arg Gly Glu Val Arg Phe Val Gln Tyr Asp Glu Ser Asp
1219      50                  55                  60
1221  Tyr Ala Leu Tyr Gly Gly Ser Ser Ser Glu Asp Asp Glu His Pro Glu
1222  65                  70                  75                  80
1224  Val Pro Arg Thr Arg Arg Pro Val Ser Gly Ala Val Leu Ser Gly Pro
1225                  85                  90                  95
1227  Gly Pro Ala Arg Ala Pro Pro Pro Pro Ala Gly Ser Gly Gly Ala Gly
1228              100                 105                 110
1230  Arg Thr Pro Thr Thr Ala Pro Arg Ala Pro Arg Thr Gln Arg Val Ala
1231          115                 120                 125
1233  Thr Lys Ala Pro Ala Ala Pro Ala Ala Glu Thr Thr Arg Gly Arg Lys
1234      130                 135                 140
1236  Ser Ala Gln Pro Glu Ser Ala Ala Leu Pro Asp Ala Pro Ala Ser Thr
1237  145                 150                 155                 160
1239  Ala Pro Thr Arg Ser Lys Thr Pro Ala Gln Gly Leu Ala Arg Lys Leu
1240                  165                 170                 175
1242  His Phe Ser Thr Ala Pro Pro Asn Pro Asp Ala Pro Trp Thr Pro Arg
1243              180                 185                 190
1245  Val Ala Gly Phe Asn Lys Arg Val Phe Cys Ala Ala Val Gly Arg Leu
1246              195                 200                 205
1248  Ala Ala Met His Ala Arg Met Ala Ala Val Gln Leu Trp Asp Met Ser
1249          210                 215                 220
1251  Arg Pro Arg Thr Asp Glu Asp Leu Asn Glu Leu Leu Gly Ile Thr Thr
1252  225                 230                 235                 240
1254  Ile Arg Val Thr Val Cys Glu Gly Lys Asn Leu Leu Gln Arg Ala Asn
1255              245                 250                 255
1257  Glu Leu Val Asn Pro Asp Val Val Gln Asp Val Asp Ala Ala Thr Ala
1258              260                 265                 270
1260  Thr Arg Gly Arg Ser Ala Ala Ser Arg Pro Thr Glu Arg Pro Arg Ala
1261          275                 280                 285
1263  Pro Ala Arg Ser Ala Ser Arg Pro Arg Arg Pro Val Glu Glu Phe
1264      290                 295                 300
```

RAW SEQUENCE LISTING   DATE: 05/29/2002
PATENT APPLICATION: US/09/575,580B   TIME: 10:49:52

Input Set : A:\09575580 Seq listing.txt
Output Set: N:\CRF3\05292002\I575580B.raw

```
      1297 <212> TYPE: PRT
      1298 <213> ORGANISM: Artificial Sequence
W-->  1299 <220> FEATURE: ← insert
      1299 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
      1300       construct
EK--> 1302 <400> SEQUENCE: 42
      1303 Met Asp Val Asp Ala Ala Thr Ala Thr Arg Gly Arg Ser Ala Ala Ser
      1304   1                   5                  10                  15
      1306 Arg Pro Thr Glu Arg Pro Arg Ala Pro Ala Arg Ser Ala Ser Arg Pro
      1307               20                  25                  30
      1309 Arg Arg Pro Val Glu Glu Phe
      1310           35
```

VERIFICATION SUMMARY   DATE: 05/29/2002
PATENT APPLICATION: **US/09/575,580B**   TIME: 10:49:53

Input Set : **A:\09575580 Seq listing.txt**
Output Set: **N:\CRF3\05292002\I575580B.raw**

L:863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:2400
L:902 M:341 W: (46) "n" or "Xaa" used, for SEQ ID# 28 after pos.:0
L:986 M:341 W: (46) "n" or "Xaa" used, for SEQ ID# 33 after pos.:0
L:1037 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:36
L:1040 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:36
L:1088 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:38
L:1091 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:38
L:1205 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:40
L:1208 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:40
L:1299 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:42
L:1302 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:42